Issue Date	Org. Date

NATIONAL OCEANIC and ATMOSPHERIC ADMINISTRATION
Environmental Manual

NOAA		Section 02

Table of Contents

Section 2 MANAGEMENT OF WASTE

Synopsis
This section is promulgated to ensure proper management of wastes generated by NOAA facilities, work sites and ships. The section applies to all NOAA operations where garbage, recyclables, hazardous waste or excess hazardous materials are generated.

Initial Implementation Requirements:

- **Designate an Individual to Coordinate the Hazardous Waste Management Effort**
- **Compare Site/Facility/Ship Operations with the Requirements of this Procedure**
  - Identify the personnel impacted by this procedure
  - Perform a Waste Survey (2.6)
    - Categorize the wastes as sewage, solid wastes, hazardous wastes, universal wastes (2.7, 2.8, 2.9.3, 2.10)
    - Determine the quantity of hazardous waste and universal waste generated
    - Determine the appropriate generator category (2.9.5)
  - If required, obtain EPA Identification Number for hazardous waste generation activity (2.9.6)
  - Assess storage practices (2.9.7)
  - Establish recordkeeping system for the uniform manifest, annual/biennial report, exception reports, training records (2.9.9)
  - Train affected NOAA employees [2.9.6b (1), 2.9.6c (4)]

Recurring and Annual Task Requirements:

- **Complete and file hazardous waste generator annual/biennial report, if required [2.9.6c(14)]**

- **Complete and sign manifest (2.9.8a) and Land Disposal Restriction form[2.9.8a(4)] for each hazardous waste shipment**

- **Continually attempt to reduce or eliminate waste generation**

- **Become aware of new waste recycling opportunities in the community**

Checklist

2 Management of Waste	YES	NO	N/A
Basic Program 1. Has an inventory of all wastes generated at the facility, work site or ship been performed? (2.6)	_____	_____	_____
2. Has each identified waste been reviewed to properly categorize it as sewage, solid, hazardous, universal, PCB or asbestos waste? (2.7, 2.8, 2.9.3, 2.10, 2.11)	_____	_____	_____
3. Has the quantity of each waste been estimated? (2.6)	_____	_____	_____
Generator Requirements 1. Based on the total quantity of waste generated, has the facility/work site determined the appropriate category of hazardous waste generator? (2.9.5)	_____	_____	_____
2. If the facility or work site is a Conditionally Exempt Small Quantity Generator (i.e., produces less than 100 kilograms (220 pounds) of hazardous waste per month) (2.9.6a): a. Are all wastes sent to an EPA/State-approved hazardous waste facility, a State-approved solid waste facility or a recycling facility? [2.9.6a(3)]	_____	_____	_____
b. Are procedures in place to ensure the accumulation or stored waste never exceeds 1,000 kg? (2.9.6a(6) & 2.9.7a)	_____	_____	_____
c. Are affected personnel trained to ensure they know how to manage the waste and respond to emergencies? [2.9.6a(4)]	_____	_____	_____

	YES	NO	N/A
3. If the facility or work site is a Small Quantity Generator (i.e., produces less than 1,000 kilograms (2,200 pounds) of hazardous waste per month) (2.9.6b)			
a. Are affected personnel trained to ensure they know how to manage the waste and respond to emergencies? [2.9.6b(1)]	_____	_____	_____
b. Are procedures in place to ensure hazardous wastes are not stored or accumulated for more than 180-days or 270-days if the waste is transported more than 200-miles to a TSD facility)? [2.9.6b(3)]	_____	_____	_____
c. Are procedures in place to ensure the accumulated waste never exceeds 6,000 kg?[2.9.6b(4)]	_____	_____	_____
d. Are selected personnel trained in how to complete the Manifest and Land Disposal Form? (2.9.8a)	_____	_____	_____
4. If the facility or work site is a "Generator," (i.e. produces more than 1,000 kilograms (2,200 pounds) of hazardous waste or more per month or 1 kilogram (2.2 pounds) of acutely hazardous waste per month) (2.9.6c):	_____	_____	_____
a. Has it applied and received an EPA ID number? [2.9.6c(2)]	_____	_____	_____
b. Are procedures in place to ensure hazardous wastes are not stored or accumulated more than 90-days? [2.9.7c(1)(a)]	_____	_____	_____
c. Does the facility/work site or ship Emergency Action Plan incorporate hazardous waste incidents? [2.9.7c(3)]	_____	_____	_____
d. Are facility personnel trained in hazardous waste management and how to respond to emergencies? [2.9.7c(4)]	_____	_____	_____
e. Are selected personnel trained in how to complete the Manifest and Land Disposal Restriction Form? [2.9.6c(5) & (6)]	_____	_____	_____
f. Are all wastes packaged, labeled and marked in accord with U.S. DOT regulations? [2.9.6c(7) & (8)]	_____	_____	_____
g. Does the facility/work site ensure the transporter has the appropriate placards? [2.9.6c(9)]	_____	_____	_____
h. Are all Manifests and Land Disposal notices retained for at least 3-years from date of shipment? [2.9.6c(10)]	_____	_____	_____
i. If wastes are shipped outside the United States, has the facility/ work site notified the U.S. EPA and received an approval?[2.9.6c(13)]	_____	_____	_____

	YES	NO	N/A
j. Are the containers of hazardous waste in the accumulation area:			
- in good condition? [2.9.7c(1)(b)(1)]	_____	_____	_____
- properly marked with the words "Hazardous Waste," the identity of the contents and the date accumulation began? [2.9.7c(1)(e)]	_____	_____	_____
- closed? [2.9.7c(1)(b)(4)]	_____	_____	_____
- stored compatibly? [2.9.7c(1)(b)(3)]	_____	_____	_____
- stored with adequate aisle space? [2.9.7c(2)(e)]	_____	_____	_____
- not stacked over 2 drums high?	_____	_____	_____
- inspected weekly? [2.9.7c(1)(b)(6)]	_____	_____	_____
k. Does the accumulation area:			
- Have a telephone or two-way radio accessible? [2.9.7c(2)(d)]	_____	_____	_____
- Have appropriate type and number of fire extinguishers? [2.9.7c(2)(b)]	_____	_____	_____
- Have spill control equipment? [2.9.7c(2)(b)]	_____	_____	_____
- Have decontamination equipment? [2.9.7c(2)(b)]	_____	_____	_____
- Have an adequate source of water/foam for fires? [2.9.7c(2)(b)]	_____	_____	_____
Universal Waste 1. Does the facility or ship generate and/or store universal wastes (batteries, pesticides, fluorescent bulbs, mercury-containing thermostats or other EPA/State-identified universal wastes)? (2.10)	_____	_____	_____
2. Has the facility/work site/ship trained all personnel regarding the legal status of universal wastes to ensure these wastes are not disposed with the trash or other solid wastes? (2.10)	_____	_____	_____

	YES	NO	N/A
3. Does the facility/work site/ship segregate and properly store these wastes prior to shipment to a recycling facility?(2.10)	_____	_____	_____
4. If the facility/work site stores less than 5,000 kg (11,000 pounds), it is a small quantity handler of universal waste. Are procedures in place to ensure:			
a. The wastes are managed to prevent leakage? [2.10.1a(1)]	_____	_____	_____
b. The container is properly labeled with the identity of the contents and the date storage began? [2.10.1a(2)(3)]	_____	_____	_____
c. The wastes are not stored or accumulated for longer than 1-year? [2.10.1a(3)]	_____	_____	_____
d. Personnel are trained to respond to emergencies? [2.10.1a(4)(5)]	_____	_____	_____
5. If the facility stores more than 5,000 kg (11,000 pounds), it is a Large Quantity Universal Waste Handler.			
a. Has it received an EPA Hazardous Waste Generator Number? [2.10.1b (3)]	_____	_____	_____
b. Are procedures in place to ensure the universal wastes are properly segregated and stored? [2.10.1b(4)]	_____	_____	_____
c. Has an internal inventory system been established and implemented to ensure these wastes are not stored more than 1-year? [2.10.1b(6)]	_____	_____	_____

	YES	NO	N/A
Satellite Accumulation			
1. Does the facility or work site use satellite accumulation areas? (2.9.7d)	_____	_____	_____
2. Are procedures in-place to ensure the total amount of waste accumulated is less then 55-gallons of hazardous waste or 1-quart of acutely hazardous waste? [2.9.7d(1)]	_____	_____	_____
3. Is the area at or near the point of generation? [2.9.7d(2)]	_____	_____	_____
4. Are the containers in good condition? [2.9.7d(3)]	_____	_____	_____
5. Are the containers kept closed except when adding or removing wastes? [2.9.7d(4)]	_____	_____	_____
6. Are all containers marked with the words “Hazardous Waste” or with other words to identify the contents? [2.9.7d(5)]	_____	_____	_____

2 MANAGEMENT OF WASTE

2.1 Purpose and Scope

In performing its mission, NOAA facilities, work locations and ships generate several types of waste materials. These wastes include sewage, food scraps and other garbage (known as "solid waste"), recyclables such as oils, batteries, etc., hazardous wastes and excess materials that must be disposed. To ensure these wastes are properly managed, this section has been promulgated. The section applies to all NOAA operations where waste is generated.

2.2 Definitions

Designated Person - a NOAA employee assigned the task of coordinating the waste management effort. This role need not be assigned to the Facility Environmental Coordinator, it may be assigned to another NOAA employee.

Designated Responsible Official (DRO) - the senior NOAA official on-site. This official has authority over operations or activities which are subject to environmental and worker safety statutes. The responsibility of the DROs is inherent in their position and need not be formally designated or ascribed.

Electronic Waste - discarded computers, cathode ray tubes (CRTs), cell phones, fax machines, electronic instrumentation.

Facility Environmental Coordinator (FEC) -the individual responsible for ensuring the activities carried out at a facility are conducted in accordance with Federal, state and local environmental regulations. Typically, each NOAA facility will have a designated FEC who is also responsible for compliance with occupational safety and health requirements. In the NWS, this individual is identified as the Environmental and/or Safety Focal Point

Generator - any person (i.e. an individual, trust, firm, joint stock company, Federal Agency, corporation, partnership, association, State, municipality, commission, political subdivision of a State or any interstate body) by site, whose act or process produces hazardous waste identified or listed in 40 CFR Part 261 or whose act first causes a hazardous waste to become subject to regulation. Note that because a ship is not fixed to a piece of real estate, it cannot be a "site" under the EPA definition and hence it cannot be regulated as a generator. The port facility that accepts a ship's waste becomes the generator for that waste. Some States however, have modified this definition to include ships as generators.

Hazardous Waste - a solid waste which (1) is not excluded by 40 CFR 261.4(b) and (2) it meets the characteristic of a hazardous waste in Subpart C or (3) is listed in Subpart D of 40 CFR 261 or, is a mixture of a solid waste and a hazardous waste.

Pollution Prevention - a continual process to use materials, processes or practices that reduce or eliminate the creation of pollutants or waste at the source. It includes practices that reduce the use of hazardous materials, energy, water or other resources and practices that protect natural resources through conservation or more efficient use.

Publicly-Owned Treatment Works - otherwise known as a sewage treatment plant.

Recyclables - Solid wastes which can be treated or processed to allow direct reuse or introduction into new products.

Solid Waste - A term used to describe garbage. The EPA defines it as any discarded material that is not excluded from regulation by 40 CFR 261.4(a) or that is not excluded by a variance granted in 40 CFR 260.30 and 260.31.

Universal Wastes - Hazardous wastes that if recycled are subject to the universal waste requirements in 40 CFR Part 273. Wastes in this category include: batteries, pesticides, thermostats and lamps.

2.3 Acronyms Employed in this Section

ACM	-	Asbestos-Containing Material
ASC	-	Administrative Service Center
CESQG	-	Conditionally Exempt Small Quantity Generator
CIH	-	Certified Industrial Hygienist
CFR	-	Code of Federal Regulations
COTR	-	Contracting Officer's Technical Representative
CRT	-	Cathode Ray Tube
CWA	-	Clean Water Act
DOT	-	Department of Transportation
DRO	-	Designated Responsible Official
EPA	-	Environmental Protection Agency
FEC	-	Facility Environmental Coordinator
HIC	-	Hydrologist-in-Charge
HTIS	-	Hazardous Technical Information Service
HUD	-	Housing and Urban Development
LBP	-	Lead-Based Paint
MIC	-	Meteorologist-in-Charge
MOU	-	Memorandum of Understanding
NCEP	-	National Centers for Environmental Prediction
NDBC	-	National Data Buoy Center
NOAA	-	National Oceanic and Atmospheric Administration
NWS	-	National Weather Service
OIC	-	Official-in-Charge
PCBs	-	Polychlorinated Biphenyls
POTW	-	Publically Owned Treatment Works
ppm	-	parts per million
RCRA	-	Resource Conservation Recovery Act
RECO	-	Regional Environmental Compliance Officer
ROC	-	Radar Operations Center
RSM	-	Regional Safety Manager
SECO	-	Safety/Environmental Coordinator
SR&DC	-	Sterling Research & Development Center
SWDA	-	Solid Waste Disposal Act
TSCA	-	Toxic Substances Control Act

2.4 Regulatory Requirements

2.4.1 Federal

Because the scope of waste management is so broad, this area is regulated by several Federal Laws.

- solid waste is regulated by the Solid Waste Disposal Act of 1965 (SWDA) as amended. The regulations created under the authority of this statute can be found in 40 CFR Parts 243 to 259.

- hazardous waste is regulated by the Resource Conservation and Recovery Act of 1976 (RCRA). The regulations created under the authority of this statute can be found in 40 CFR Parts 260 to 279.

- the discharge of sewage and other wastewater either directly into the "waters of the United States" or indirectly into a publicly owned treatment works is regulated by the Clean Water Act (CWA). The regulations created under the authority of this act can be found in 40 CFR Parts 100-140.

- polychlorinated biphenyls (PCBs), lead-based paint (LBP) and radon are regulated under the Toxic Substances Control Act of 1976 (TSCA). This act also regulates the manufacture, production and importation of chemical substances. The regulations created under this act can be found in 40 CFR Parts 700 to 766.

2.4.2 State

Most states are authorized by the Environmental Protection Agency (EPA) to manage their own programs for solid and hazardous waste as well as wastewater discharges. In addition to creating their own programs for these areas, some have also created management programs for PCBs, lead-based paint and other hazardous chemicals as well as special regulatory programs for ships.

2.4.3 Local

Many port authorities have established no-discharge zones and other requirements for the discharge of effluent and greywater from ships. These regulations are explained in the NOAA manual "Ship Environmental Compliance Protocol." Additionally, the local Department of Health typically regulates the use of septic systems.

2.4.4 International Agreements

NOAA ships often travel outside the territorial boundaries of the United States and are required to comply with international laws and agreements. For example, the discharge of garbage, plastics, oil, hazardous substances and sewage is regulated by the International Maritime Organization (IMO) and the International Convention for the Prevention of Pollution from Ships (MARPOL). These rules are explained in the NOAA "Ship Environmental Compliance Protocol".

2.5 Contracting/Contractor Considerations

When using a contractor to transport, treat or dispose of a waste, the NOAA does not transfer legal liability for improper management with the physical transfer of the waste. As a result, all new and existing contracts must be carefully scrutinized to maintain minimum liability for the NOAA and its employees.

2.5.1 Contract Language

All contracts must be reviewed to assure that the contract clearly mandates that the contractor comply with the law. With the assistance of the Contracting Officer's Technical Representative (COTR), NOAA facilities and work sites shall review all existing contracts to ensure they include a phrase mandating the contractor to "comply with all applicable Federal, State and local laws pertaining to the proper transportation, management and disposal of wastes and materials."

2.5.2 Review of the Contractor

Because the law can hold NOAA and its employees responsible for the mismanagement of NOAA-generated wastes by a contractor, it is important that NOAA facilities and work sites deal with responsible contractors.

Prior to using the services of a contractor, contact the NOAA RECO or NWS Regional Environmental Coordinator and ask them to check with the State and/or EPA to determine the compliance history of the contractor. Also determine if there are prior citations or other legal sanctions for improper or illegal waste management practices by the Contractor. If so, how have these been resolved? What is the current enforcement status of the Contractor?

Also, if possible, review the financial situation of the contractor to determine if the contractor has sufficient resources and/or the necessary insurance to protect the NOAA from unexpected liabilities.

Again, the RECO or COTR can provide assistance in this effort.

2.6 The Waste Survey

Because many of the requirements under the applicable Federal and State laws are based on the type and quantity of each waste generated at a geographic location, the designated person for each NOAA facility, work site and ship must perform a waste survey to document the existence and characteristics of each waste.

The waste survey will include a list of each identified waste or type of waste generated on the site and its approximate volume in either pounds or kilograms or gallons and, if accumulated or stored prior to shipment, the type of container(s) employed, where it is stored, who transports it off-site and where does it go for ultimate disposal. Attachment 1 is a Waste Survey Form which can be used to gather this information.

2.7 Sewage

Because of the health threats due to improper management of sewage, the management of sewage must be reviewed for each NOAA facility, work site and ship. Because sewage is normally treated off-site by a municipal treatment plant or on-site using a septic system or shipboard system, the requirements for this review will vary.

2.7.1 Municipal Treatment Plant

For facilities and stations using a municipal sewage treatment facility [also known as a Publicly-Owned Treatment Works (POTW)], the Designated Responsible Official must ensure that no material that could damage the treatment plant or cause a treatment upset is released into the system from the NOAA facility, work site or ship. Contact should be made with the POTW to obtain a list of items which are prohibited from purposeful or accidental discharge. Compile a listing of items used at the NOAA facility, work site or ship that is covered by the prohibition.

All employees who work with the materials that could cause a problem if released into the system must be informed of this prohibition and provided instruction on procedures in-place to contain these materials if spilled or released.

2.7.2 Septic Systems and Shipboard Systems

For both septic systems and shipboard systems, a list of prohibited items must be prepared. If necessary, contact the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO), if available, and/or the NOAA RECO for assistance. All employees must then be informed about the list of personal care items (i.e., some medications) and other work-related materials (i.e., acids, solvents, radiosonde activation water) which cannot be released into the system. Additionally, employees working with materials that could upset the septic system must be informed of the procedures to use to contain these materials if spilled or released.

2.8 Solid Waste

Office trash, food scraps and other non-hazardous garbage are collectively referred to as "solid waste." This is a legal term and does not refer to the physical form of the waste. A solid waste can be a liquid, contained gas or a solid material. This waste is regulated by State and Local laws.

Solid waste must be kept segregated from "hazardous waste", "universal waste" and other specially regulated wastes such as used oil or PCBs and will be further segregated into "recyclable" and "disposable" material.

2.8.1 Recyclable Solid Waste

There are several types of solid waste which should be recycled to the greatest extent possible. These wastes include:

(1) office paper, magazines, newspapers, cardboard
(2) aluminum cans
(3) glass jars, bottles and other containers
(4) scrap metal
(5) spent toner cartridges

Because solid waste recycling programs are normally operated by local governments, the Designated Person must check with the local officials to determine the existence and requirements for the recycling effort.

To make it as convenient as possible for all facility/ship employees to actively participate in the program, collection facilities (i.e., individual containers) for recyclables will be established and located to allow segregation of the materials by category.

2.8.2 Disposable Solid Waste

Solid waste for disposal will be removed from work areas on a scheduled basis and stored in a well ventilated area, secure from attack by vermin, rodents or other animals. The storage area will be contained to prevent fire, safety or health hazards or inadvertent discharges to the stormwater system, soil or surface water.

All facility, work site or ship personnel must be informed which materials are prohibited from disposal via the solid waste disposal program.

2.8.3 Medical Wastes

As required by paragraph 30.3.13 of Procedure 30 (Office Safety) of NOAA Occupational Safety & Health Manual, contaminated reusable sharps and other medical wastes are required to be collected in closeable, puncture-resistant, leakproof, labeled or color-coded containers. These containers must be easily accessible to facility, work site or ship personnel, kept upright during use, routinely replaced, kept closed and placed in secondary containment for disposal. Contact the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO), if available, and/or the NOAA RECO for assistance in locating a contractor. Usually these contractors are required to obtain a license from the State Health or Environmental Department.

2.9 Hazardous Waste

2.9.1 Responsibility

Because of the special threat to human health and the environment, hazardous waste requires a greater amount of control. In the role as the Designated Responsible Official, this individual bears direct legal responsibility for the proper management of these wastes.

2.9.2 Enforcing Agency

Under the Resource Conservation and Recovery Act, the States and U.S. Territories can manage the hazardous waste programs within their borders if authorized by the EPA.

Thus far, 48 States and Guam have received this authorization. The States of Alaska and Iowa have not - nor has Puerto Rico or the other Pacific territories.

As a result, NOAA facilities and/or work sites located in an authorized State or Territory must review and comply with their State's or Territory's regulations. NOAA facilities and/or work sites located in States or Territories that have not received authorization must comply with both EPA *and* the State or Territory regulations.

NOAA facilities located in another country (i.e., in the South Pacific) must comply with that country's environmental regulations. However, as required by the NWS Environmental Compliance Directive (NWSPD 50-51), all NWS facilities in foreign countries must also comply with all applicable U.S. EPA regulations.

As a base line, this procedure will reference EPA regulations which are found in Title 40 of the Code of Federal Regulations (40 CFR) which can be referenced on-line at www.epa.gov or www.gpo.gov. NOAA facilities and work sites must contact State and/or local authorities to determine if and how these rules have been modified for their locality.

2.9.3 Identification of Hazardous Wastes

The hazardous waste identification procedure can become complicated. Contact the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO), if available, and/or the NOAA RECO if assistance is required. A solid, liquid or gas which is discarded is defined as a "solid waste." If its disposal poses a threat to human health or the environment, a solid waste may be considered a "hazardous waste." The EPA regulations governing the hazardous waste identification process are found in 40 CFR 261 (http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr261_00.html).

To determine if a discarded material is a hazardous waste:

(1) review 40 CFR 261.4 to determine if it is excluded. If not,

(2) determine if it is a listed hazardous waste and/or

(3) determine if it has any of the characteristics of a hazardous waste.

a. Excluded Wastes

In 40 CFR 261.4, the EPA has identified a number of wastes which are excluded from regulation as hazardous wastes because they are not legally considered "solid wastes". Of these, NOAA facilities or work sites usually only generate sewage. If after reviewing the list there is any question if a waste qualifies as an exempted solid waste, contact the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO), if available, and/or the NOAA RECO for guidance.

b. Listed Hazardous Wastes

If a waste is not excluded from regulation by 40 CFR 261.4, the the lists of hazardous wastes in Subpart D of 40 CFR 261 (or State equivalent) must be reviewed. The EPA has created three (3) lists of solid wastes which are regulated as hazardous waste:

(1) hazardous wastes from non-specific sources
(2) hazardous wastes from specific sources, and
(3) discarded commercial chemical products, off-specification species, container residues and spill residues thereof.

For NOAA activities, hazardous wastes within only two of the lists must be considered. The listing of "hazardous wastes from specific sources" is only applicable to the defined industrial production activity and is not applicable to NOAA operations or the wastes they generate.

(1) Commercial Chemical Products, Off-specification Species, Container Residues, and Spill Residues thereof.

If the solid waste to be discarded is an:

(a) unused material,
(b) excess material,
(c) a container of material that does not meet the legal definition of "empty," [see 2.9.3 d] or
(d) a residue from a spill of material,

review the EPA lists in 40 CFR 261.33 or the State/Territory equivalent.

If the material or its principle active ingredient is listed on either the "acute" list in 40 CFR 261.33(e) or the "toxic" list in 40 CFR 261.33(f), the waste is a hazardous waste and assigned the "P" or "U" number corresponding to its listing.

(2) Hazardous Waste from Non-Specific Sources

Review the list of hazardous wastes from non-specific sources in 40 CFR 261.31 or the State equivalent with a focus on the listings for the spent solvents F001, F002, F003, F004 and F005. If the solid waste is listed, it is hazardous and assigned the "F" number corresponding to its description.

(3) Other Hazardous Waste Lists

Some States have additional lists of hazardous waste (i.e., PCB wastes, etc.). Review these lists to ensure all solid wastes identified in the waste survey are evaluated.

c. Characteristic Wastes

Whether a waste is listed as hazardous or not, the next step is to determine if the waste meets one or more of the characteristics of a hazardous waste. The EPA has established four (4) characteristics for a hazardous waste (i.e., ignitable, corrosive, reactive or toxic). Review the descriptions in Subpart C of 40 CFR 261 (or State equivalent) and determine if any solid waste meets these criteria and assign all the appropriate "D" numbers (note: this evaluation must be performed even if a waste is a listed waste).

d. Empty Containers

Empty containers that held hazardous waste are regulated as hazardous unless:

(1) the inner liner is removed;

(2) all wastes have been removed using *common practices*, and

(a) for a 110-gallon or less container, no more than 2.5 centimeters (1 inch) remains on the bottom or inner liner; or

(b) for containers larger than 110-gallons, no more than 0.3 percent of the weight of the total capacity remains;

(3) a compressed gas, the container is returned to atmospheric pressure;

(4) the container held an acute hazardous waste from the list in 40 CFR 261.33(e), the container or inner liner has been triple rinsed with 10 percent of the capacity of the container using a suitable solvent or cleaner or some other approved cleaning technique. Please note that the solvent is now considered a hazardous waste.

2.9.4 Determination of Who is the "Generator"

For NOAA facilities and work sites that are located on a piece of property owned by the Federal Government (but under the control of NOAA), and are separate from other Federal, State and local agencies, the NOAA facility is the "generator." For NOAA facilities located in leased space and/or co-located with other governmental agencies or organizations (like a State University), a determination of which entity is the "generator" will be required. This will require a review of existing Memoranda of Understanding (MOU) between all parties. This review is done by the NOAA Administrative Service Center (ASC) who is responsible for the lease.

If the NOAA facility is the "generator" of a multi-organization site, NOAA and the Facility Manager bear the legal responsibility for proper hazardous waste management for *all* parties on the site. If another agency or entity is determined to be the generator, the NOAA facility must comply with the policies and programs established by the generator under the terms of the MOU.

Because the EPA identifies generators by "site", a NOAA ship cannot be a "generator" of hazardous waste. When the ship unloads its waste onto land at a port, the port facility becomes the "generator" and is legally responsible for proper management of the ship's waste. To address this, the State of California amended its definition of the term "generator" to include ships. As a result, NOAA vessels that visit California ports are required to comply with the generator standards.

2.9.5 Type of Generator

The EPA has created three different types of hazardous waste generators based on the quantity of hazardous waste produced at a site.

Each NOAA site must determine if it is:

1. a ***Conditionally Exempt Small Quantity Generator*** (CESQG) because it produces less than 100 kilograms (220 pounds) of hazardous waste per month as long as no more than 1 kg (2.2 pounds) is an acute hazardous waste.
2. a ***Small Quantity Generator*** (SQG) because it produces more than 100 kg but less than 1,000 kilograms of waste per month as long as no more than 1 kg (2.2 pounds) is an acute hazardous waste.
3. a ***Generator*** because it produces either 1,000 kilograms (2,200 pounds) or more per month of hazardous waste or 1 kg or more of acutely hazardous waste [wastes which are listed in 40 CFR 261.31, 261.32 or 261.33(e)]. This generator is often called a "Large Quantity Generator" although this is not an EPA term.

Note: A NOAA facility that produces less than 100 kilograms per month which is co-located on a site with another governmental agency or private organization may be regulated as a *Generator* if the aggregate of waste generated on the site by all the tenant units exceeds the 1,000 kilogram limit.

2.9.6 Requirements for Generators

a. Requirements for the Conditionally-Exempt Small Quantity Generator

Generators that produce less than 100 kg/mo of hazardous waste:

(1) must determine which "solid wastes" are hazardous waste,

(2) are not required by the EPA to obtain an Identification Number (but some States may still require it and some hazardous waste transporters and disposal contractors demand it),

Note: If a spill or other non-repeating event or operation causes a conditionally exempt small quantity generator to exceed the 100 kg/mo limitation, a temporary EPA Identification Number can be obtained. Once the unusual event is over, the number can then be rescinded.

(3) can send wastes to a State-approved solid waste disposal facility (this is not a permitted hazardous waste facility), or, if the local community allows, often these wastes may be taken to the local household hazardous waste collection center.

(4) have no special training requirements, however best management practices mandates affected personnel be trained how to properly handle the waste and respond to emergencies

(5) do not have to file an exception nor annual/biennial report,

(6) are limited to 1,000 kg of waste in accumulation but have no time limit,

(7) are not required by the EPA to use a manifest - BUT - best management practice demands a manifest always be used to document that the wastes were properly managed.

b. Requirements for the Small Quantity Generator

Generators who produce more than 100 kg/mo but less than 1,000 kg/mo must comply with the same requirements as Generators who produce more than 1,000 kg/mo except that:

(1) the personnel training requirements are reduced to proper waste handling and emergency response procedures,

(2) the time limit for filing the exception report has been extended to 60-days,

(3) accumulation is extended from 90-days to 180-days or 270-days if the waste must be shipped more than 200-miles,

(4) the amount of waste that can be accumulated is limited to 6,000 kg.

Note: If either the weight limit of 6,000 kg or the time limit (180-days or 270-days if shipped over 200-miles) is exceeded, the EPA considers the material "in storage" (not in accumulation) and a storage permit is required.

c. Generators that produce more than 1,000 kg/mo. must:

(1) Determine which "solid" wastes are hazardous wastes.

(2) Apply for and receive an EPA Identification Number prior to treating, storing, disposing or offering for transport any hazardous waste. If located in an authorized State or Territory, the Generator Identification Number will be obtained by applying to the State or Territory. Facilities in Alaska, Iowa or an unauthorized Territory must apply to the EPA by completing EPA Form 8700-12 which is submitted to the EPA Regional Office.

If assistance is needed, contact the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO), available, and/or the NOAA Regional Environmental Officer (RECO).

(3) Ensure wastes are not stored or accumulated for more than 90-days.

(4) Provide training for facility personnel in their role in the requirements of the hazardous waste management program including the accumulation standards and their response to emergencies.

(5) Prepare a uniform manifest before transporting or allowing transport of any hazardous waste off-site.

(6) Prepare a land disposal notice informing the disposal facility of the components of the waste and the requirements for treatment prior to land disposal

(7) Package all wastes in accordance with the Department of Transportation (DOT) regulations in 49 CFR 173, 178, 179.

(8) Mark and label each package in accordance with DOT regulations in 49 CFR 172.

(9) Ensure the initial transporter has the appropriate placards in accordance with DOT regulations in 49 CFR 172 Subpart F.

(10) Retain each copy of the manifest and land disposal notice for at least three (3) years from date of shipment. (Note: because of the long-term liability of hazardous waste management actions, retention of these documents for longer than 3-years is highly recommended.)

(11) Contact the designated treatment, storage or disposal facility if a signed copy of the manifest is not received within 35 days of shipment (Note: some states have reduced this time limit to 15-days).

(12) Prepare an exception report in accordance with 40 CFR 262.42 if a signed copy of the manifest is not received from the designated facility within 45 days of shipment (Note: some states have a 20-day time limit).

(13) Comply with the requirements in 40 CFR 262.50 for shipments of waste outside the United States.

(14) Prepare an annual or biennial report summarizing the total amount of each hazardous waste shipped off-site to each permitted facility (**Note**: the EPA requires this report every two (2) years, while many states require an annual submission). A copy of this report will also be sent to the NOAA RECO.

2.9.7 Storage Requirements

a. Requirements for Conditionally-Exempt Generators

For those NOAA facilities and work sites that generate less than 100 kilograms (220 pounds) per month and accumulate or store less than 1,000 kilograms total, the accumulation is not regulated - BUT - the OSHA HAZCOM Standard and best management practices require appropriate labeling, marking and storage techniques be employed.

b. Requirements for the 100-1,000 kg/mo Generators

For those NOAA facilities who produce between 100 and 1,000 kilograms per month, storage (or accumulation) without a permit is allowed if:

(1) the wastes are shipped off-site in 180-days of generation (this is extended to 270-days if the waste must be shipped over 200 miles),
(2) the requirements of 40 CFR 265.173 for Generators who accumulate in containers are met (see 2.9.7c.) except the 50-foot buffer zone is not required for ignitable wastes,
(3) the requirements of Subpart J of 40 CFR 265 are met if the waste is stored in tanks,
(4) containers are clearly marked with the accumulation date and the words "Hazardous Waste",
(5) the preparedness and prevention standards in Subpart C of 40 CFR 265 are met,
(6) one employee is on-site or on-call at all times to act as the Emergency Coordinator,
(7) emergency telephone numbers are posted in convenient locations,
(8) employees who handle hazardous waste are trained in proper waste handling protocols,

Table 1
Comparison of Hazardous Waste Generator Requirements for Different Types of Waste Generators

EPA Requirement	Generator	Small Quantity Generator	Conditionally-Exempt Small Quantity Generator
Identify Hazardous Waste	Yes[1]	Yes[1]	Yes[1]
Generation Limits	greater than 1,000 kg/mo (2,200 lb/mo)	more than 100 kg/mo (220 lb) but less than 1,000 kg/mo (2,200 lb)	less than 100 kg/mo (220 lb/mo)
Facility Receiving Waste	RCRA permitted facility	RCRA permitted facility	State approved or RCRA permitted
EPA Identification Number	Required	Required	Not Required[2]
Provide Personnel Training	Yes	Yes	No[3]
Comply with DOT Rules	Yes	Yes	Yes
Provide Department of Transportation Training	Yes	Yes	Yes
Exception Report	Required if over 45-days	Required if over 60-days	No
Biennial Report	Required	Not Required	Not Required
On-Site Accumulation Limits (without permit)	Any quantity	up to 6,000 kg (13,227 lb)	up to 1,000 kg (2200 lb)
Accumulation Time Limits (without permit)	90 days	180 days or 270 days (if transported over 200 mi)	None
Storage requirements	Full compliance with management of containers or tanks	Lesser requirements for containers or tanks	None
Use Manifests	Yes[4]	Yes[4]	No[5]

Notes for Table 1

[1]Authorized State or Territory requirements may be more restrictive than the EPA rules. Check all applicable State and Local rules.

[2]The EPA does not require obtaining an EPA ID Number, however most hazardous waste facilities refuse to take waste unless a generator ID number is provided.

[3]The EPA has no formal training requirement, but best management practices require that personnel are taught how to manage even small quantities of waste and how to respond in an emergency.

[4]Unless the waste is reclaimed under contractual agreement and properly marked and labeled.

[5]Not required by EPA regulation, however best management practices require each shipment of hazardous waste be accompanied by a Manifest.

c. Requirements for Generators who Generate over 1,000 kg/mo

For those NOAA facilities who generate over 1,000 kg/mo or are co-located on a site where the combined generation of the government units is over 1,000 kg/mo, accumulation of the waste is allowed if:

(1) wastes are stored prior to off-site shipment in accordance with the "accumulation" standards in 40 CFR 262.34 by ensuring:

- (a) all wastes are shipped off-site within 90-days of generation (Note: if the 90-day limit is exceeded, a hazardous waste facility permit will be required)
- (b) containers are:
  - (1) in good condition
  - (2) non-leaking
  - (3) compatible with the waste
  - (4) kept closed except when adding or removing
  - (5) managed to avoid rupture
  - (6) inspected weekly
- (c) ignitable and reactive wastes are stored compatibly and are at least 50-feet from the property line,
- (d) the containers meet the air emission standards in 40 CFR 264.1086,
- (e) clearly marked with the date accumulation began and the words "Hazardous Waste"

(2) the facility has reviewed and complied with the preparedness and prevention standards in Subpart C of 40 CFR 265 which require:

- (a) maintaining and operating the storage facility to minimize possible hazards of fire, explosion, unplanned release
- (b) securing all necessary emergency equipment

(c) testing emergency equipment on a periodic basis to ensure functionality
(d) ensuring access to communication equipment for all emergencies
(e) maintaining the necessary aisle space between containers
(f) establishing an arrangement with the local response agency as per Procedure 25 - Emergency Response Agreements of the NOAA Occupational Health and Safety Manual to ensure proper response in an emergency

(3) the facility has reviewed and complies with the requirements of Subpart D of 40 CFR Part 265 which requires establishment of a Contingency Plan and Emergency Procedures (Note: review Procedure 5 - Emergency Action Plan of the NOAA Occupational Health and Safety Manual for guidance).

(4) the facility has completed a Personnel Training Program on the requirements for accumulating hazardous waste as required by 40 CFR 265.16.

d. Satellite Accumulation

The original EPA hazardous waste regulations required generators to ship all hazardous waste within 90-days of generation. Since the 90-day time clock begins when the waste is first added to the collection container, the EPA found that large numbers of partially filled containers were being shipped to disposal facilities by generators who produced waste at relatively slow rates. To correct this problem, the EPA created the concept of "Satellite Accumulation" which allows generators to "store" (accumulate) a hazardous waste until a container is filled as long as:

(1) the total volume of the container is less than 55-gallons of hazardous waste or 1 quart of acutely hazardous waste (the "P' wastes),

(2) the container is kept near the point of generation and under the control of the operator,

(3) the containers are in good condition,

(4) the containers are kept "closed" except when adding or removing waste, and,

(5) the containers are marked with the words "Hazardous Waste" or words to identify the contents.

When the container is filled, it must be moved to the accumulation area within three (3) days.

2.9.8 Shipping Documents

a. Manifest

1. Requirements

Prior to transporting or allowing transport of a hazardous waste off-site, the generator must prepare a Hazardous Waste Manifest using EPA Form 8700-22 or State-modified equivalent. The manifest must include:

(a) the name, EPA ID Number and location of a designated facility where the waste is to be shipped,
(b) a 24-hour emergency contact telephone number in case of an emergency and a signed waste minimization certificate.

> **Note**: If a contractor completes the Manifest for the NOAA facility, the designated person must sign the document and assume the liability that all information is correct.

Although the Manifest was designed by the EPA and DOT, several States have modified the document to require additional information.

2. Choosing the Appropriate Manifest

In choosing the appropriate manifest, first review the requirements of the State where the waste is to be sent. If the receiving State has a State-modified version of the manifest, use that version.

If the receiving State does not have a State-modified manifest but the State where the NOAA facility is located does, use the originating State version. If neither State has a State-modified manifest, use any pre-printed version.

3. Waste Minimization Certification

The manifest includes a generator certification which reads: "Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment."

By signing the manifest, the Generator "certifies" a formal waste minimization program has been established. The manifest should only be signed by the Facility Environmental Coordinator or other trained personnel designated by the Designated Responsible Official.

4. The Land Disposal Notification Form

   As required by the Land Disposal Restrictions, a generator must also provide the treatment, storage or disposal facility with a notice which clearly informs the facility that the waste either does or does not meet the EPA standards for land disposal. For wastes that do not meet the standard, the generator is required to inform the facility and provide the appropriate treatment standards that must be achieved prior to land disposal. As a courtesy to their clients, this written notice is normally provided by the disposal facility for signature by the generator. The notice will include the EPA identification number, the appropriate treatment standard, the manifest number, and waste analysis data, where applicable.

2.9.9 Recordkeeping

Generators must:

(1) retain the copy of the manifest and Land Disposal Notice or Certification signed by the receiving treatment, storage or disposal facility for three (3) years from date of shipment.
(2) retain a copy of each Annual Report, Biennial Report and Exception Report for three (3) years.
(3) retain a copy of any test results or analysis for three (3) years after that waste was last shipped for treatment or disposal.
(4) retain all records if an enforcement action begins until the action is completed.

2.9.10 Annual Reporting (Biennial Report)

A generator who generates over 1,000 kg/mo and ships off-site must submit a Biennial Report on EPA Form 8700-13A to the Regional Administrator no later than March 1 for the preceding odd numbered calendar year.

Many states require the generator to complete an Annual Report to the State regulatory agency no later than March 1 for the preceding calendar year.

If required to complete one of these reports, contact the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO), (if available) and/or the NOAA RECO for assistance.

These reports detail the amount of each hazardous waste shipped to each treatment, storage or disposal facility during the previous 12 months. A copy of the annual (or biennial) report will be sent to the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO), (if available) and/or the NOAA RECO for review.

2.10 Universal Wastes

"Universal Waste" is a solid waste which because of its chemical composition, meets the legal definition of a "hazardous waste" - but - it is recyclable - hence the EPA and most States have decided to reduce the management requirements to encourage their recycling.

If *disposed*, these wastes are "hazardous" and the disposal must comply with all the hazardous waste regulations. These wastes cannot be discarded with the facility's , work site's or ship's solid waste or garbage.

If *recycled*, these wastes are "universal" wastes and subject to a reduced set of requirements.

Contact the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO), if available, and/or the NOAA RECO to determine if the universal waste requirements are applicable in your state.

Currently, the EPA lists the following wastes as Universal Wastes:

(1) all types of batteries including "button" or "watch" batteries
(2) fluorescent bulbs
(3) mercury-containing thermostats
(4) pesticides

Special Note:	The EPA recently proposed to add "mercury-containing equipment" to the Federal list of universal waste. When finalized, this will add thermometers, barometers, mercury light switches and similar items to the list. Because this rule reduces the hazardous waste management standards for these wastes, once this proposed change is finalized by the EPA, it is effective in an authorized State *only* if the State adopts the change.

2.10.1 Requirements for Handlers of Universal Waste

In contrast to hazardous waste, the requirements for universal wastes are not based on the amount of waste generated, but rather the amount stored. As a result, the EPA regulates "handlers" of universal waste - not generators.

The EPA has two types of handlers: *Small quantity handlers* of universal waste who store less than 5,000 kg (11,000 pounds) of universal wastes and *Large quantity handlers* who store more than 11,000 pounds.

a. Small Quantity Handlers

NOAA facilities that store less than 5,000 kg of universal waste must:

(1) manage them to prevent leakage or release of electrolytes,

(2) must label and mark containers with one of the following phrases:

(a) Waste Batteries (or pesticide, etc.)
(b) Used Batteries (or pesticide, etc.)
(c) Universal Waste - Batteries (or pesticide, etc.)

(3) mark the date the container first received waste and limit accumulation to 1-year,

(4) train employees,

(5) contain all releases,

(6) ship to a (1) Large Quantity Hazardous Waste Handler (usually a retail store that collects used batteries as a public interest) or (2) a permitted recycling or treatment, storage or disposal facility.

No manifest or other tracking document is required by the EPA - BUT - best management practices mandate some paperwork documenting the transfer be maintained.

b. Large Quantity Handlers

NOAA facilities that store more than 5,000 kg of universal waste must meet the standards in Subpart C of 40 CFR 273. These handlers:

(1) cannot dispose of the universal waste (they must recycle),

(2) cannot dilute or treat the universal waste except in a response to a spill,

(3) must notify the EPA or State if previous notification as a hazardous waste generator has not been submitted and receive an EPA Identification Number,

(4) must comply with specific management standards for each waste stored,

(5) must label and mark containers with one of the following phrases:

(a) Waste Batteries (or pesticide, etc.)
(b) Used Batteries (or pesticide, etc.)
(c) Universal Waste - Batteries (or pesticide, etc.)

(6) can store universal wastes up to one-year, but must maintain an inventory system which can document the time limit is not exceeded,

(7) must ensure employees are trained in proper waste handling and emergency response,

(8) must have an emergency response plan for releases,

(9) must retain for 3-years a record of each shipment of universal waste received or shipped. This record can be a log, invoice, manifest, bill of lading or other shipping document that includes the name and address of the originating universal waste handler or the foreign shipper, the quantity of each type of universal waste and the date of receipt.

2.10.2 Batteries

According to 40 CFR Part 273.2(b), "a used battery becomes a waste on the date it is discarded and an unused battery becomes a waste on the date the handler decides to discard it." Usually batteries are NOT solid wastes which can be discarded in the trash. Because of their chemical components, most batteries (alkaline, lead acid, lithium hydride, etc.) are either a hazardous waste if it is disposed - or - a universal waste if recycled.

a. Lead Acid Batteries

NOAA facilities and work sites that generate spent lead acid batteries can manage them either as:

(1) an exempted hazardous waste under Subpart G of 40 CFR Part 266, or

(2) an universal waste.

If managed as an exempted hazardous waste, the NOAA facility or work site must perform a hazardous waste determination and follow the US Department of Transportation rules regarding shipment of a hazardous material. See Section 3.11.4 of this manual for specific information regarding DOT-required marking and labeling.

If these batteries are managed as a universal waste, the appropriate, universal waste handler standards (Paragraph 2.10.1 a or b) must be followed. Note that the universal waste rule is less complicated.

b. Other Batteries

All batteries that are destined for recycling are managed as universal wastes, otherwise they are hazardous wastes and bear full regulation. NOAA facilities and work sites that store less than 5,000 kg total of universal waste must comply with the standards for Small Quantity Handlers in Paragraph 2.10.1 a.

Facilities which store more than 5,000 kg of batteries must comply with the standards in paragraph 2.10.1 b for Large Quantity Handlers of Universal Waste. In addition, these handlers must comply with the EPA- (or State) specific standards for management of waste batteries (see 40 CFR 273.33).

2.10.3 Fluorescent Bulbs

Most NOAA facilities generate used fluorescent bulbs. Because these tubes normally contain enough mercury to fail the toxicity characteristic, the bulbs are hazardous waste unless recycled.

As a general rule, recyclers will only accept unbroken tubes and hence broken tubes are usually managed as hazardous waste.

For an example of how to mark these containers, visit:

www.easc.noaa.gov/environ/lampballastweb/lampentrypage_v2.htm

or, if a computer with Microsoft WORD is available, Appendix D to this manual is a freeware software program which allows the user to print the necessary labels and markings. Unfortunately, it cannot be easily converted into WordPerfect.

Spent bulbs destined for recycling should be re-inserted into the protective case that was used to ship the bulbs to the facility and marked "Universal Waste - fluorescent bulb," dated and stored separately from the new bulbs.

To locate a fluorescent tube recycler, consult Attachment B to this section or contact the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO), if available, and/or the NOAA RECO for a list of fluorescent bulb recyclers.

2.10.4 Pesticides

Excess, unused or out-of-date pesticides will be managed as universal wastes if recycled, however, there are few facilities that recycle these materials. If a recycling facility can be located, NOAA facilities and work sites would be required to comply with the appropriate handlers standard (see Paragraph 2.10.1 a or b) and the requirements imposed by the recycler.

2.11 Common Wastes Generated by NOAA Facilities

In performing its mission, NOAA facilities and work sites typically generate several specific wastes. These include:

1. Used oil from the vehicles, back-up diesel generators and maintenance on other equipment
2. Used antifreeze/water mixtures
3. Spent acid and bases
4. Aerosol cans
5 Computers and other electronic equipment
6. PCBs in old fluorescent light ballasts and old transformers taken out of service
7. Asbestos in gaskets, floor tile and adhesives, and insulation
8. Lead-based paints
9. Excess paint and paint solvents
10. Rags

2.11.1 Used Oil

Fearing that used oil would be improperly disposed if designated as a hazardous waste, the EPA created a separate management system for used oil under 40 CFR Part 279. Because most, but not all of the States have adopted the EPA rules, NOAA facilities will need to determine if State-specific rules apply by contacting the NOAA RECO.

a. Definition of "Used Oil"

While most of the used oil generated by NOAA facilities is regulated under the EPA rules for "used oil," the following materials are not used oil and are regulated differently:

(1) mixtures of used oil and listed hazardous waste and mixtures where concentrations of halogenated solvents exceed 1,000 ppm. These are regulated as hazardous waste.

(2) mixtures of used oil and hazardous waste which exhibit characteristics of Subpart C of 40 CFR 261 (ignitable, corrosive, reactive and toxic). These are also regulated as hazardous waste except if the mixture only has the characteristic of ignitability - then it is regulated as used oil.

(3) mixtures of used oil and diesel fuel mixed on-site by the generator for use in the generator's vehicle. This mixture is not regulated by the EPA. Prior to mixing, however, the oil is subject to the used oil generator standards.

(4) materials that are beneficially used and/or derived from used oil not burned for energy recovery. These materials are not solid wastes and hence not regulated as hazardous waste either.

(5) wastewater containing "very small quantities of used oil from small spills, leaks or drippings from pumps, machinery, etc. This wastewater is not regulated.

(6) oil introduced into crude oil and natural gas pipelines. Again this oil is only regulated prior to introduction into the pipeline.

(7) oil contaminated with PCBs. These are regulated under 40 CFR 761 as PCBs.

(8) oil on vessels. This oil becomes regulated as used oil when it is transferred to a shore or port facility.

b. Rebuttable Presumption

NOAA facilities such as the National Data Buoy Center or the NOAA Office of Marine and Aviation Operations ports in Seattle or Norfolk can generate spent oil

that is contaminated with salt water (i.e. the oily bilge water). Often this waste is subject to a rule called the "rebuttable presumption." Under this rule, the EPA assumes that any used oil which contains 1,000 parts per million (ppm) total halogens (i.e. chlorine, fluorine, bromine or iodine) has been contaminated with a halogenated solvent and hence is a hazardous waste. If a generator can prove the halogens are not due to organic solvents (but is from the salt in sea water), the oil can be handled as non-hazardous. This is a "rebuttal" to the EPA assumption that the waste is hazardous and hence the term "rebuttable presumption." If the halogen content exceeds 4,000 ppm however, the oil is assumed to be hazardous and the testing will not change this conclusion. Chemical testing may be required to document the type of halogen present (if applicable) in your waste oil.

c. Used Oil Generator Requirements

NOAA facilities and work sites that generate used oil shall:

(1) not mix hazardous waste with used oil,

(2) store used oil in tanks or containers which meet the criteria for hazardous waste storage:

(a) containers must be in good condition and not leaking
(b) containers must be marked with the words "Used Oil," (**Note**: Appendix D to this manual is a WORD program which can be used to print the necessary marking.)
(c) aboveground ancillary equipment handling used oil must be marked with the words "Used Oil",
(d) if used oil is released from a container, proper clean-up and reporting are necessary, and
(e) if the total quantity of used oil on-site exceeds 1,320-gallons, a Spill Prevention Control and Countermeasures Plan (SPCC) will be required.

d. Transport

Unlike hazardous waste, NOAA facilities are allowed to transport used oil without an EPA Identification Number if:

(1) the oil is transported in a vehicle owned by the government,
(2) not more than 55-gallons is transported at one time,
(3) the oil is transported to a facility that is registered, licensed, permitted or recognized by a state/county/municipal government to manage used oil, or
(4) the oil is transported from a remote site to a NOAA facility to be accumulated for later disposal.

If the oil is to be transported off-site for recycling or disposal by a contractor, a transporter who has an EPA Identification Number must be used. Refer to Section 3.11.2 for the DOT marking and labeling requirements.

e. Recycle/Disposal

If possible, used oil should be recycled. Contact the NOAA RECO if assistance is needed to locate a local contractor.

Normally, contractors that recycle used oil also take used antifreeze.

Special Note: The EPA allows the use of used oil as fuel in a used oil space heater if:

(1) the heater uses oil generated by NOAA,
(2) the heater is designed to have a maximum capacity of 0.5 million BTU per hour, and
(3) the combustion gases are vented to the ambient air.

2.11.2 Used Antifreeze Solutions From Vehicles and Other Equipment

Used antifreeze solutions (usually ethylene glycol or propylene glycol and water) are not EPA hazardous wastes. They are not listed wastes nor do they meet any of the four (4) characteristics . Because of the inherent toxicity of these mixtures, most States have decided to regulate these wastes - usually in conjunction with their used oil rules. To determine the requirements for a specific NOAA facility, work site or ship, contact the NOAA RECO.

Typically, the used oil contractor will also take used antifreeze/water solutions.

2.11.3 Spent Acids and Bases

Spent acids such as acetic, hydrochloric or sulfuric and bases like sodium or potassium hydroxide or ammonium hydroxide must be carefully containerized and stored prior to shipment off-site to a treatment facility. Neutralization - with one exception - is legally defined as treatment and cannot be done unless the facility has an EPA or State granted hazardous waste treatment permit. The one exception to the treatment rule is for "elementary neutralization." In this procedure, the EPA allows the neutralization of an acid or base that is a waste only because it is corrosive (pH below 2.5 or above 12). The acid or base cannot be hazardous for any other reason - meaning it cannot be ignitable as defined in 40 CFR 261.21, be considered reactive as defined in 40 CFR 261.23 nor contain any metals or other contaminants listed on Table 1 in 40 CFR 261.24.

2.11.4 Aerosol Cans

If empty, the EPA does not regulate aerosol cans as hazardous waste. If a can is not empty because the contents are no longer needed or the spray mechanism is defective - AND - the contents are a listed or characteristic hazardous waste, the aerosol can must be managed as a hazardous waste.

Some States have interpreted the EPA definition for a reactive waste in 40 CFR 261.23(6), that is, "It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement" to include aerosol cans as "reactive" because they "explode" when placed in a fire. The EPA has explained that they do not consider aerosol cans as "reactive" since when placed in a fire, the contents of most cans do not detonate nor undergo an explosive reaction and hence the can does not "explode."

If a NOAA facility generates aerosol cans identified by the EPA or State as hazardous, they must be managed and shipped off-site as hazardous waste - or - punctured using a commercially-available device to remove the contents and vent the propellant. Normally these devices collect the liquid for later disposal as a hazardous waste and trap the propellant in activated carbon. The punctured, empty can is now regulated as a solid waste (i.e. garbage).

2.11.5 Computers and Other Electronic Equipment

a. Current Status

Computer central processing units (CPUs) and the associated cathode ray tubes (CRTs) or monitors (i.e. e-waste) are composed of various metals, plastics and glass which contain significant amounts of lead. If improperly disposed, these materials can release metals which contaminate groundwater.

To minimize the amount of these items sent to municipal solid waste landfills, on June 12, 2002, the EPA proposed excluding cathode ray tubes (CRTs) or computer monitors from regulation as a hazardous waste if:

(1) the CRTs and CPUs are packaged, labeled and stored in accord with a special set of rules (40 CFR 261.39), and

(2) the CRTs and CPUs are recycled.

Several states have also begun modifying how they regulate this waste. While some regulate it as scrap metal if recycled, some are considering regulating it as universal wastes. As a result, the requirements for management and disposal and even the paperwork required for transportation can vary significantly. For example, if a CRT is a hazardous waste, a hazardous waste manifest is required. If it is a universal waste, a shipping paper will be required for a large quantity universal waste handler, but no paperwork will be required from a small quantity universal waste handler or a scrap metal recycler.

To help the military determine the current requirements for a specific State, the Hazardous Technical Information Service (HTIS) has created a webpage which identifies State contacts for information on how to manage this waste. The webpage is called "e-waste@HTIS" and is found at:

www.dscr.dla.mil/HTIS/ewaste1.htm.

b. Scrap Solder and Circuit Boards

Depending on where and when it was manufactured, solder used in electronic circuit boards and other electrical applications may or may not contain lead. If the solder contains lead, it will normally fail the EPA toxicity test for lead and be legally classified as a hazardous waste (D008). If the solder doesn't contain lead (i.e. lead-free), it is a solid waste (garbage) when disposed. Unfortunately, unless labeled as lead-free, testing is the only way to determine if solder and/or soldered connections contain lead.

The normally leaves 3 options for the disposal of excess solder or electronic equipment containing soldered connections that is not identified as lead-free:

(1) dispose as hazardous waste,
(2) test for lead and dispose as hazardous if it fails the EPA toxicity test or dispose as a solid waste if it passes the EPA toxicity test,
(3) recycle using a recognized recycler.

c. Current Strategy

To stay in compliance while the EPA and State rules may be changing, do not discard any computers or electronic wastes as solid waste. Donation to a third-party may also be possible, but check with the property manager and/or the NOAA Personal Property handbook. All computer equipment should be excessed through GSA or sent to a recycling facility. If GSA is unable to locate another user, the equipment may have to be disposed as hazardous waste.

If a CRT becomes severely damaged and a recycling option is not available, dispose of it as a hazardous waste with the EPA Waste ID Number D008.

2.11.6 PCBs

Older NOAA facilities and ships built prior to July 2, 1979 may contain ballasts in fluorescent light fixtures and transformers that contain PCBs.

a. Ballasts

After 1979, fluorescent light ballasts were prohibited from containing PCBs and were to be clearly marked "No PCBs." Although EPA rules allow unmarked ballasts which are assumed to contain PCBs to be disposed in a municipal landfill if they are not leaking, EPA policy recommends these ballasts be disposed at a facility permitted by the EPA to recycle, landfill or incinerate PCBs. As a result, State rules must be checked prior to disposing of PCB ballasts into a municipal landfill. Some states still regulate these ballasts as listed hazardous waste which would prohibit this disposal option.

b. Transformers

Transformers containing a dielectric fluid which contains 500 ppm or more of PCBs are deemed a "PCB transformer" and are regulated by the EPA according to 40 CFR 761. See Section 12 - Polychlorinated Biphenyls for more detailed information regarding the management of PCB transformers.

While in use, PCB transformers:

(1) must be equipped with electrical protection to prevent overload or removed from service

(2) must be registered with fire response personnel if in use "in or near a commercial building"

(3) must have all combustible materials removed from the PCB transformer

(4) must be visually inspected quarterly

(5) must be visually inspected for leaks daily

(6) must be clearly labeled that it contains PCBs

When taken out of service, PCB transformers:

(1) can be stored for up to 30-days on pallets

(2) must be incinerated or drained, flushed and then disposed in an EPA-permitted landfill. (Note: this can only be done at an EPA-permitted facility.)

2.11.7 Asbestos

NOAA facilities and ships constructed prior to 1981 may contain asbestos and/or asbestos-containing materials (ACM). While the EPA has determined that, in general, the prevailing asbestos levels in buildings and the levels of employee exposure appear to be very low, Procedure 31 - Asbestos Safety in the NOAA Occupational Safety and Health manual requires these facilities to be inspected by an accredited inspector or Certified Industrial Hygienist (CIH). If asbestos is suspected to be present in a NOAA facility, the NOAA Regional Environmental Coordinator (RECO) or Regional Safety Manager (RSM) should be contacted.

Where the presence of asbestos is confirmed in a NOAA facility, an Asbestos Control Program is required.

Should work be required to be performed on a non-NOAA facility (i.e. CO-OP housing) that will disturb asbestos siding, either the NOAA employee performing the work must be trained as a Class II Asbestos Worker (see Section 17.6.5c) or the work must be done by an approved contractor.

Because the management, control, removal and disposal of asbestos is regulated by both the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) on the Federal level and the State worker safety and environmental agencies as well as local municipalities, the NOAA Regional Environmental Compliance Officer (RECO) and the NOAA Regional Safety Manager (RSM) should be consulted. Section 11 of this manual describes the requirements for removing and disposing of ACM.

2.11.8 Lead-Based Paint

NOAA facilities and ships built before 1978 may have one or more coatings of lead-based paint (LBP). The existence of this paint in employee housing and the removal from these and all other facilities is regulated by the EPA, OSHA and Housing and Urban Development (HUD).

a. Lead-Based Paint in Housing and Child Occupied Areas

The Real Estate Notification and Disclosure Rule became effective September 6, 1996. The rule requires realtors and landlords of housing to provide purchasers and tenants with information regarding lead-based paints in homes built before 1978. The rule requires sellers, landlords and agents to provide purchasers and tenants with an EPA-approved lead hazard information pamphlet and allows purchasers a 10-day period to inspect the housing unit for lead-based paint.

For NOAA facilities that incorporate housing units, the NOAA RECO should be contacted for assistance in identifying the presence of lead-based paint. If confirmed, a lead-based paint awareness program will be established (in which residents must be notified of where the lead-based paint is located) and copies of the EPA-approved pamphlet obtained for distribution to affected employees. The pamphlet includes instructions on what to do if the lead-based paint becomes damaged or peels.

If a NOAA facility has a daycare or public area that children will occupy, the NOAA RECO should be contacted to determine if lead-based paint is present.

b. Lead-Based Paint on Ships and in Other Facilities

For NOAA facilities other than housing that may contain lead-based paint (LBP), the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO), or NOAA RECO should be contacted prior to any remodeling or renovation project to assist in determining the presence of the lead-based paint and, if removal is deemed appropriate, assistance in securing the qualified contractors.

c. Lead-Based Paint Removal and Disposal

The removal of lead-based paint (LBP) must be done by personnel who have successfully attended an EPA-certified training course for lead-based paint

removal. Contractors must document and/or verify that personnel used for this effort have the EPA-certified training prior to the initiation of the removal effort.

Currently, the lead-based paint (LBP) residue is a hazardous waste when disposed. On December 18, 1998, the EPA proposed to allow this waste to be regulated under Title IV of the Toxic Substance Control Act (TSCA) which would allow lessened regulation and control. This proposal has not become final.

If lead-based paint residue is generated in the removal of lead-based paint from housing, the "household hazardous waste exemption" in 40 CFR 261.4(b)(1) applies. The residue is not considered a hazardous waste and can be disposed as a solid waste.

If lead-based paint residue is generated in the removal of lead-based paint from a NOAA building, facility or ship that is not considered a housing unit, representative samples of the residue must be tested using the Toxicity Characteristic Leaching Procedure (TCLP) test methodology for the characteristic of lead (D008). If the residue exceeds the regulatory limit for lead, it must be managed as a hazardous waste.

NOAA facilities should contact the NOAA RECO to determine if there are any State modifications to the EPA rules.

2.11.9 Excess Paint

a. Latex Paint

Prior to disposing of any excess latex paint, check the label and/or the Material Safety Data Sheet regarding the components of the paint.

Latex paint manufactured prior to 1988 may contain a mercury compound as a fungicide. As a result, excess supplies of this paint usually require disposal as a hazardous waste (D009).

Unless it contains a toxic metal as a pigment, latex paints manufactured after 1988 do not meet any of the criteria of a hazardous waste nor are they listed. As a result, excess latex paint does not need to be managed as a hazardous waste.

While this paint can be disposed as solid waste (i.e. garbage), it is highly recommended that the following protocol be used:

(1) find something to paint and use up the excess, or

(2) if the State allows, open the container(s) and allow the paint to harden prior to disposal. Note that this option depends on State regulations and the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO) or NOAA Regional Environmental Coordinator (RECO) should be consulted.

b. Oil-Based Paint

Depending on the solvents used in its manufacture, excess oil-based paint may be regulated as a hazardous waste if:

(1) it contains a toxic metal listed in Table 1 of 40 CFR 261.24, the toxicity characteristic. The metals of concern include: Barium, Cadmium, Chromium and Lead. If any of these metals are present in an amount that would exceed the maximum concentration allowed in an extract of the paint, the paint must be managed as a hazardous waste.

(2) it has a flash point below 140°F. If the material safety data sheet or label does not provide this information, a sample may have to be sent to a laboratory for analysis. Contact the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO) or the NOAA Regional Environmental Compliance Officer (RECO) for assistance in securing the services of a qualified laboratory.

While State regulations vary significantly, in general, if the oil-based paint does not have a flash point below 140°F nor contain a toxic metal as a pigment, it can be managed as a solid waste (i.e. garbage). Again, it is recommended that the paint be used to paint something or the container(s) left open until the paint hardens prior to disposal. Check with the Regional Environmental Coordinator or Safety/Environmental Coordinator (SECO) or the NOAA Regional Environmental Compliance Officer (RECO) to determine if the State has any special provisions for excess paint disposal.

2.11.10 Rags

If a rag is used to wipe up or clean off a piece of equipment that was covered with a spent solvent or cleaner that is a hazardous waste, the rag also becomes a hazardous waste.

If sent for disposal, the rag must be managed as a hazardous waste and will be identified with the same EPA hazardous waste number as the spent solvent or cleaner.

If the rags are to be recycled (i.e. washed), many (but not all) of the States have decided to modify this rule. In some States, there is little control required but in some, all the hazardous waste rules apply. Check with the NWS Regional Environmental Coordinator and/or NOAA Regional Environmental Compliance Officer (RECO) to determine the requirements for a specific State.

2.12 Specific Wastes Generated by NOAA Laboratories

a. Excess or Old Reagents

When discarding out-of-date or excess reagents, check the list of Commercial Chemical products listed in 40 CFR 261.33(e) and (f). If the unwanted reagent is listed on one of

these lists, it is assigned the corresponding "U" or "P" Hazardous waste identification number.

There is a very special caution that must be understood when managing any acute hazardous ("P") waste. If the total weight of the acute hazardous waste exceeds 1 kilogram (2.2 pounds) including the weight of the container, the generator must meet all the requirements for a generator who produces more than 1,000 kilograms (2,200 pounds) of hazardous waste per month as detailed in section 2.9.6c and 2.9.7c of this manual even if the generator is considered a "Conditionally Exempt Small Quantity Generator" who actually produces less than 100 kilograms (220 pounds) per month. This requirement includes obtaining a hazardous waste generator number, preparing a formal hazardous waste contingency plan and presenting an employee training program which must remain in effect during the period the acute hazardous waste is present on-site.

b. Empty Reagent Bottles

Empty reagent containers are not considered hazardous waste, however, the container must meet the EPA definition for "empty." When the contents of a container is removed, review the definition of an "empty container" in section 2.9.3d of this manual. Note that if the container is rinsed out, the rinsings are considered a hazardous waste and must be managed properly.

c. Formalin Solutions

Formalin is the common name used to describe the mixture of 37% formaldehyde in water. Because formaldehyde is a listed hazardous waste if discarded (U122) because of its low flash point and toxicity, discarded, unused formalin would be managed as U122 because the formaldehyde is the "sole active ingredient."

When used in the laboratory however, the formalin is usually diluted with 9 parts water to produce a 10% formalin (3.7% formaldehyde) solution which is then used to preserve samples. When this solution is discarded, a different set of rules apply.

Since this diluted formalin is not a "commercial form" of formaldehyde and it has been "used," the U122 identification number is not appropriate. Also, because it has been diluted with water, the 10% solution no longer has a flashpoint below 140°F and hence it cannot be assigned the D001 designation for the ignitability characteristic. When discarded, the diluted formalin is not a "hazardous waste."

However, this solution still has several hazardous properties and it must not be improperly disposed. Because the formaldehyde is biodegradeable if very dilute, best management practices suggest that it be diluted with copious amounts of water and the resulting mixture flushed down the drain - but - consult with the local sewage treatment plant (Publically Owned Treatment Works or POTW) first to determine if a local ordinance would prohibit this action.

d. Spent Solvents

Solvents used in a laboratory normally are hazardous wastes when discarded because they are either listed as a non-specific listed waste (F001, F002, F003, F004 or F005) or they meet the characteristic of ignitability (flashpoint less than 140°F - D001) or toxicity (D004 through D043) due to the materials dissolved in the solvent.

2.13 Specific Wastes Generated by the National Weather Service

a. Rain Gauge Fluids

To minimize evaporation, the NWS normally adds a small amount of mineral oil to an empty rain gauge. In colder temperatures, propylene glycol (antifreeze) is also added to prevent freezing.

The bi-layered liquid cannot be poured onto the ground. It must be collected and properly managed.

Typically, the used oil contractor will take the rain gauge liquid - often requesting it be mixed with the used oil. While this reduces NWS's effort, it can increase disposal costs.

Because the water portion of this waste only contains a small volume of antifreeze, most municipal sewage treatment facilities will readily accept this wastewater (but check before using this disposal procedure).

To separate the layers, use a device with a bottom drain, such as a picnic jug. The container must be clearly marked "Antifreeze/Water" (see Section 4.6.3). The rain gauge liquid can be collected over a period of time at one site or from several sites. After allowing time to separate, drain the bottom water layer of the device and discharge to the sewer. Collect the remaining small oil layer and add it to the used oil containers.

2.14. Specific Wastes Generated by the Office of Marine and Aviation Operations

a. Non-Chlorinated and Chlorinated Solvents

For many years, OMAO used a number of non-chlorinated and chlorinated petroleum hydrocarbon solvents and solvent mixtures that were classified as hazardous wastes by the EPA due to their ignitability (D001) or because they are specifically listed by the EPA in both the unused and spent solvent lists due to their toxicity.

The chlorinated solvents that were used included 1,1,1-trichloroethane (U226), trichloroethylene (U228), tetrachloroethane (or perchloroethane) (U210), methylene chloride (U080), freon (U121). Depending on the identity of the solvent and how it was used, the spent solvents are identified by the EPA as F001 or F002 .

The non-chlorinated petroleum hydrocarbon solvents previously employed included methyl ethyl ketone (MEK) (U159, if unused or F003, if spent), a methyl ethyl ketone/methyl isobutyl ketone (MEK/MIBK) mixture (U159/U161 if unused or F003/F005 if spent) and toluene (U220 if unused or F005 when spent).

These solvents should have been replaced by non-hazardous substitutes. If these solvents are still in use (or storage) at a facility, remove from use and dispose of existing stocks as soon as possible.

b. Blasting Grit

The blasting of ship hulls, valves and other items protected with paints that contain heavy metals (i.e. lead, chromium) may result in production of a hazardous waste.

To ensure proper disposal of this blasting waste, representative samples of the grit and paint chips should be tested.

c. Spent acids

Spent acetic, citric, hydrochloric, sulfuric, and sulfamic acids generated aboard a ship should be containerized and stored for shore disposal if generated within 12 nautical miles (nm) off shore. If beyond the 12 nm limit, the acid should be carefully neutralized and then flushed overboard.

d. Waste water with corrosion inhibitors

Water is used aboard ships for a variety of cooling purposes. The diesel generator, diesel engine, electronics, locked in ballast and fuel ballast cooling water can contain antifreeze, and/or a variety of chemicals used to prevent corrosion of the cooling system. As a general rule, these solutions are to be containerized for shore disposal. Only the residue from the diesel engine coolant test residue which contains copper sulfate, antifreeze or Nalcool 2000 are allowed to be discharged overboard but only if the ship is beyond the 12 nautical mile limit from shore. Otherwise, these fluids must be containerized for shore disposal.

2.15 Responsibilities

2.15.1 NOAA Headquarters

a. The NOAA Environmental/Safety Office shall perform an annual assessment of the NOAA Headquarters facilities to ensure that the facilities are in compliance with this section.

b. The NOAA Environmental/Safety Office shall periodically perform an assessment of the regional headquarters and field offices to ensure compliance with this section. The frequency of these regional and field office assessments shall be determined by the NOAA Environmental/Safety Office.

c. Requests for clarification concerning this section shall be directed to the NOAA Environmental/Safety Office.

2.15.2 Regional or Operating Unit Environmental/Safety Coordinator

a. Shall monitor and coordinate to promote compliance with the requirements of this procedure for the regional headquarters and field offices or operating units.

b. Shall assist field offices or operating units in understanding the requirements of this section and achieving compliance.

c. Shall ensure that procedures are developed at regional headquarters or operating unit facilities to properly manage waste.

d. Shall perform an annual assessment of the regional headquarters facilities or operating unit to monitor and promote compliance with the requirements of this section.

e. Shall perform assessments or designate personnel to perform assessments of all field offices to monitor and promote compliance with the requirements of the section.

2.15.3 Designated Responsible Official

a. Shall have oversight over the implementation of this section and ensure that the requirements of this section are followed by individuals at the NOAA facility.

b. Shall ensure sufficient personnel and funding are available to enable compliance with all applicable requirements of this section.

c. Shall ensure that procedures are developed at NOAA field offices for proper management of all wastes generated.

d. Shall ensure NOAA employees follow the requirements of this section.

e. Shall review or delegate review of this section on an annual basis to ensure that the facility is complying with its requirements. Confirmation of this review shall be forwarded to the Regional or Operating Unit Environmental/Safety Coordinator.

2.15.4 Facility Environmental Coordinator or Environmental/Safety Focal Point or Designated Person

a. Shall ensure that any tasks delegated to them by the Designated Responsible Official are implemented in accordance with the requirements of this section.

2.15.5 Employees

a. Individual employees affected by this section are required to read, understand and comply with the requirements of this section.

b. Report all violations of the requirements of this section to their supervisor or Environmental Focal Point.

2.16 References

Incorporated References

The following list of references is incorporated as a whole or in part into this section. These references can provide additional explanation or guidance for the implementation of this section.

2.16.1 U.S. Environmental Protection Agency

a. 40 CFR 260 "Hazardous Waste Management System"

b. 40 CFR 261 "Identification and Listing of Hazardous Wastes"

40 CFR 261.4	Exclusions
40 CFR 261.5	Special requirements for hazardous waste generated by conditionally exempt small quantity generators
40 CFR 261.7	Residue of hazardous waste in empty containers
40 CFR 261.9	Requirements for Universal Wastes

c. 40 CFR 262 "Standards Applicable to Generators of Hazardous Waste"

40 CFR 262.11	Hazardous waste determination
40 CFR 262.23	Use of the manifest
40 CFR 262.34	Accumulation time
40 CFR 262.40	Recordkeeping
40 CFR 262.41	Biennial report
40 CFR 262.42	Exception reporting
40 CFR 262.50-.58	Exports of Hazardous Waste

d. 40 CFR 264 "Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities"

40 CFR 264.1086	Air Emission Standards for Containers

e. 40 CFR 265 "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities"

40 CFR 265.16 Personnel Training

40 CFR 265.173 Management of Containers

f. 40 CFR 273 "Standards for Universal Waste Management"

2.16.2 National Weather Service Manual 50-1115, Occupational Safety and Health, Procedure 30 - "Office Safety"

2.16.3 Office of Marine and Aviation Operations, Ship Compliance Protocol

2.16.4 U.S. Department of Transportation

a. 49 CFR 172 Hazardous Materials Table, Special Provisions, "Hazardous Materials Communications, Emergency Response Information and Training Requirements"

b. 49 CFR 173 Shippers - General Requirements for Shipments and Packagings

c. 49 CFR 178 Specifications for Packagings

d. 49 CFR 179 Specifications for Tank Cars

Attachment A

WASTE SURVEY FORM

1. Facility Identification

   Facility Name/Type_____ Facility POC _____

   Address _____ Date _____

2. Basic Waste Information

   Name of Waste _____

   Generated When/By _____

   The waste is ☐ spent (used) ☐ unused virgin material (excess) ☐ off spec product

   ☐ stored less than 90-days ☐ stored over 90-days ☐ treated ☐ disposed on this site

   Quantity Generated _____ ☐ per month ☐ per year ☐ one time

3. Waste Description

CIRCLE APPROPRIATE BLOCKS	
PHYSICAL STATE @70°F SOLID LIQUID SEMISOLID	VISCOSITY @ 70°F LOW MEDIUM HIGH
LAYERING NONE BILAYERED MULTILAYERED	APPROXIMATE % LAYERING BY VOLUME _____% TOP, _____%, _____%,_____%BOTTOM
SUSPENDED SOLIDS <5% 5-20% >20% WEIGHT OR VOLUME	DISSOLVED SOLIDS BY WEIGHT <5% 5-20% >20%
SPECIFIC GRAVITY @ 60°F <0.8% 0.8-1.0 1.0-1.2 1.2-1.4 1.4-1.7 >1.7	OTHER INFORMATION:

4. Waste Composition

   Known Constituents _____

   _____

   _____

5. Waste Hazards

   Is this waste:

   _____ ignitable? (Flash point less than 140°F, flammable solid, ignitable compressed gas)

   _____ corrosive? (pH less than 2.0 or greater than 12.5)

   _____ reactive? (Unstable, reacts violently or creates explosive vapors with water, generates toxic gases, detonates, or is a forbidden explosive)

   _____ toxic? (Contains arsenic, benzene, cadmium, lead, mercury, silver, or other contaminant listed in Table 1 in 40 CFR 261.24)

   _____ a spent solvent?

   _____ infectious? (sewage, biomedical)

   _____ radioactive?

   _____ a universal waste? (Battery, fluorescent bulb, unused pesticide)

   Does the waste contain ___ asbestos ___ PCBs ____ Lead-based paint?

6. Storage Data

   Storage Container ☐ drum ☐ bulk _____

   Material of Construction of Container _____

   Storage Location _____

   How Long is it Stored (Max) _____ days

7. Shipping Data

   Shipping Container ☐ drum ☐ bulk _____

   Material of Construction of Container _____

   Which Label(s) are Applied _____

   Which Markings are Applied _____

   Are Placards Provided ___ Yes ___ No If so, which _____

Current Hauler _____ Cost _____

Hauler's Address _____

Phone Number _____ Hauler EPA ID No. _____

8. Treatment/Disposal Information

Current Disposal Method _____

Is This Waste Treated/Disposed ____ On-site ____ Off-site

If Off-site, it is Treated/Disposed by _____

Location of Treatment/Disposal Facility _____

Cost _____ Facility EPA ID No. _____

9. Assessment

Is This Waste ☐ a Solid Waste ☐ a Hazardous Waste ☐ a PCB Waste

☐ an Asbestos-containing Waste ☐ a Universal Waste

Is More Information Required ____ Yes ____ No

Is Testing Required ____ Yes ____ No

The Assigned EPA Hazardous Waste No. _____

10. Completed By

Name _____ Title _____

Signature _____ Date _____